

**AIRCRAFT ACCIDENT  
IDENTIFICATION  
NO.**

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**81**

1/5  
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A25-1

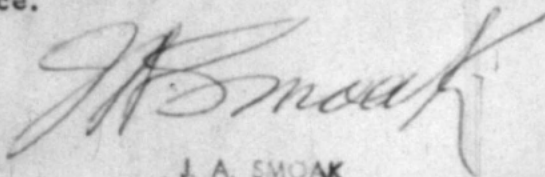
Ser: 1170

20 FEB 1956

THIRD ENDORSEMENT on VMA-331 AAR ser 1-56, concerning AD-5's  
BuNo's 133926 and 133854, accident occurring  
5Jan56, pilots (b) (6) and SPROWLS

From: Commanding General, Aircraft, Fleet Marine Force, Atlantic  
To: Chief of Naval Operations (OP-57)  
Via: Director, U. S. Naval Aviation Safety Center  
Subj: VMA-331 AAR ser 1-56; submission of

1. Forwarded, concurring with the conclusion and recommendation contained in the Aircraft Accident Report as amended by endorsements thereto.
2. Information contained in items 20 and 21 of OPNAV Form 3750-1 with respect to AD-5 BuNo. 133854 is not consistent with that appearing on page "1. a. of six (6)" of the report. It is believed that the latter information is correct. The wind force and direction, item 19, is also inconsistent between the foregoing tabulations and also differs from OPNAV Form 3750-1 with respect to AD-5 BuNo. 133926. In this instance however, the force and direction of the wind is not considered to be of any particular significance.



J. A. SMOAK  
Chief of Staff

Copy to:  
BUAER (2)  
CMC (AA)  
COMAIRLANT  
CG MAG-31 (Rein) (2)  
NavAvnSafCen (2)  
CO VMA-331  
BAR Douglas Acft

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35:mb

30 January 1956

SECOND ENDORSEMENT on VMA-331 AAR ser 1-56, concerning AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956, pilots (b) (6) and SHOWLS.

From: Commanding General, Marine Aircraft Group 31 (Rein)  
To: Chief of Naval Operations (OP-57)  
Via: (1) Commanding General, Aircraft, Fleet Marine Force, Atlantic  
(2) Director, U. S. Naval Aviation Safety Center, Naval Air Station, Norfolk, Virginia

Subj: VMA-331 AAR serial 1-56; submission of

1. Forwarded, concurring with the conclusions and recommendations of the aircraft accident board and the comments contained in the first endorsement, except as noted below.
2. Although the aircraft accident board did not specifically conclude the cause, it is apparent to have been solely an error against the pilot in charge of the flight in that he was flying in close formation at a time when the student pilot thought the instructor was observing at a safe distance.
3. This accident clearly indicates the absolute necessity for thorough, detailed briefing in regards to the exact maneuver contemplated during any proposed flight. In this case, the briefing indicated individual aerobatics which subsequently developed into close formation and a "tail-chase", flight.
4. Action upon the board's recommendation as to adherence to squadron policies shall be a subject of critical review by this headquarters.

  
W. G. MANLEY

Copy to:

NavAvnSafCen (2)  
BuAer (2)  
CMC (Code AA) (1)  
ComAirLant (1)  
CG, AirFMFLant (1)  
CO, MCAS, Miami (1)  
BAR Douglas Aft (1)  
CO, NAMC, AMEL,  
Phila. 12, Penna. (1)  
CO, VMA-331 (2)

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FF14/VMA-331  
GFV/sfc  
25 January 1956

FIRST ENDORSEMENT on VMA-331 AAR 1-56, concerning AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956, pilots (b) (6) and SPROWLS

From: Commanding Officer  
To: Chief of Naval Operations (Op-57)  
Via: (1) Commanding General, Marine Aircraft Group 31 (Rein)  
(2) Commanding General, Aircraft, Fleet Marine Force, Atlantic  
(3) Director, Naval Aviation Safety Center, Naval Air Station, Norfolk, Virginia

Subj: VMA-331 AAR 1-56, submission of

1. Forwarded concurring with the conclusions and recommendations of the accident board.

2. It is pointed out that there is no unmistakable evidence that Captain SPROWLS was following Lieutenant (b) (6) through his Immelmann maneuver, since Lieutenant (b) (6) did not see Captain SPROWLS following him at all times and there were no other witnesses. However, based on Lieutenant (b) (6)'s statement and on the type damage to his left wing, it appears that this conclusion by the accident board is reasonable and true.

3. The accident board conducted a thorough and intelligent investigation, and their inability to ascertain why Captain SPROWLS did not either, (1) recover from the maneuver, or, (2) bail-out, is concurred in. It appears that one of the following probably pertained:

- (a) Captain SPROWLS was injured or unconscious after the mid-air collision, or,
- (b) Captain SPROWLS was trapped in the cockpit, or,
- (c) Captain SPROWLS believed he could recover control of the aircraft.

4. The final responsibility for conducting any flight in a safe manner and under positive control lies with the flight leader. This squadron is re-emphasizing this total responsibility by insuring, (1) that all flights are fully briefed, (2) that all flights are flown as briefed, and, (3) that flight leaders maintain positive control particularly during formation flights.

*G. F. Vaughan*  
G. F. VAUGHAN

Copy to:

Naval Aviation Safety Center (2)  
Bu/er (2)  
CNC (Code AA) (1)  
ComAirLant (1)  
CG, AirFMFLant (1)  
CG, MAC-31(Rein) (1)  
CO, MCAS, Miami, Florida (1)  
B/R Douglas Aircraft  
El Segundo, California (1)  
CO NAMP, Aeronautical  
Medical Equip Laboratory  
Phila., 12, Pennsylvania (1)

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THE AIRCRAFT ACCIDENT BOARD SHALL SUBMIT THIS REPORT TO THE C.O. OF THE ACTIVITY CONDUCTING THE INVESTIGATION. IT SHALL THEN BE FORWARDED BY THE C.O. IN ACCORDANCE WITH CURRENT AAR INSTRUCTIONS.

1. DATE OF ACCIDENT 5 January 1956		2. ACTIVITY SUBMITTING REPORT 0940R VMA-331		3. AAR SERIAL NO. 1-56	
4. MODEL A/C AD-5		5. CHECK DAMAGE TO A/C <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E		6. REPORTING CUSTODIAN OF A/C VMA-331	
7. NAME OF UNIT OPERATING THE A/C VMA-331		8. BASED AT MCAS, Miami, Florida		9. OPERATIONAL CHAIN OF COMMAND MAG-31(Rein), AirFt Plant, ONO	
10. LOCATION OF ACCIDENT 42 miles west of MCAS Ops-Locks, Florida		11. UNIT TO WHICH OPERATOR ATTACHED VMA-331			

12. PERSONNEL INVOLVED (Including name and injury code of those injured, not occupants of A/C)		A	B	C	D	E
FULL NAME, RANK, SERVICE, FILE NO. (List person in control first)		AGE	BILLET	POSITION	INJURY	
Walter C. SPROWLS, Captain USMC, 038653, Svc Gp 1 "A"		39	Pilot	Cockpit Left Seat	A	

13. PILOT EXPERIENCE	TOTAL ALL MODELS	TOTAL THIS MODEL	LAST 12 MONTHS ALL MODELS	LAST 6 MONTHS ALL MODELS	LAST 3 MONTHS THIS MODEL	INSTRUMENT DATE SPECIAL/NO/NO
TOTAL HOURS	2011.0	214.7	330.9	46.5	46.5	PILOT'S AGE 39
INSTRUMENT HOURS			33.4	5.9	5.9	DATE DESIGNATED 15 June 1944
NIGHT HOURS			25.1	0.0	0.0	
OR LANDING DAY/NITE	34/0	34/0	34/0	4/0	4/0	

14. CHECK IF, FIRST OF SECOND, THIRD, FOURTH, FIFTH, SIXTH, SEVENTH, EIGHTH, NINTH, TENTH, ELEVENTH, TWELFTH, THIRTEENTH, FOURTEENTH, FIFTEENTH, SIXTEENTH, SEVENTEENTH, EIGHTEENTH, NINETEENTH, TWENTIETH, TWENTY-FIRST, TWENTY-SECOND, TWENTY-THIRD, TWENTY-FOURTH, TWENTY-FIFTH, TWENTY-SIXTH, TWENTY-SEVENTH, TWENTY-EIGHTH, TWENTY-NINTH, THIRTIETH, THIRTY-FIRST, THIRTY-SECOND, THIRTY-THIRD, THIRTY-FOURTH, THIRTY-FIFTH, THIRTY-SIXTH, THIRTY-SEVENTH, THIRTY-EIGHTH, THIRTY-NINTH, FORTIETH, FORTY-FIRST, FORTY-SECOND, FORTY-THIRD, FORTY-FOURTH, FORTY-FIFTH, FORTY-SIXTH, FORTY-SEVENTH, FORTY-EIGHTH, FORTY-NINTH, FIFTIETH, FIFTY-FIRST, FIFTY-SECOND, FIFTY-THIRD, FIFTY-FOURTH, FIFTY-FIFTH, FIFTY-SIXTH, FIFTY-SEVENTH, FIFTY-EIGHTH, FIFTY-NINTH, SIXTIETH, SIXTY-FIRST, SIXTY-SECOND, SIXTY-THIRD, SIXTY-FOURTH, SIXTY-FIFTH, SIXTY-SIXTH, SIXTY-SEVENTH, SIXTY-EIGHTH, SIXTY-NINTH, SEVENTIETH, SEVENTY-FIRST, SEVENTY-SECOND, SEVENTY-THIRD, SEVENTY-FOURTH, SEVENTY-FIFTH, SEVENTY-SIXTH, SEVENTY-SEVENTH, 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HUNDRED-FIRST, NINETY HUNDRED-SECOND, NINETY HUNDRED-THIRD, NINETY HUNDRED-FOURTH, NINETY HUNDRED-FIFTH, NINETY HUNDRED-SIXTH, NINETY HUNDRED-SEVENTH, NINETY HUNDRED-EIGHTH, NINETY HUNDRED-NINTH, NINETY-ONE HUNDREDTH, NINETY-ONE HUNDRED-FIRST, NINETY-ONE HUNDRED-SECOND, NINETY-ONE HUNDRED-THIRD, NINETY-ONE HUNDRED-FOURTH, NINETY-ONE HUNDRED-FIFTH, NINETY-ONE HUNDRED-SIXTH, NINETY-ONE HUNDRED-SEVENTH, NINETY-ONE HUNDRED-EIGHTH, NINETY-ONE HUNDRED-NINTH, NINETY-TWO HUNDREDTH, NINETY-TWO HUNDRED-FIRST, NINETY-TWO HUNDRED-SECOND, NINETY-TWO HUNDRED-THIRD, NINETY-TWO HUNDRED-FOURTH, NINETY-TWO HUNDRED-FIFTH, NINETY-TWO HUNDRED-SIXTH, NINETY-TWO HUNDRED-SEVENTH, NINETY-TWO HUNDRED-EIGHTH, NINETY-TWO HUNDRED-NINTH, NINETY-THREE HUNDREDTH, NINETY-THREE HUNDRED-FIRST, NINETY-THREE HUNDRED-SECOND, NINETY-THREE HUNDRED-THIRD, NINETY-THREE HUNDRED-FOURTH, NINETY-THREE HUNDRED-FIFTH, NINETY-THREE HUNDRED-SIXTH, NINETY-THREE HUNDRED-SEVENTH, NINETY-THREE HUNDRED-EIGHTH, NINETY-THREE HUNDRED-NINTH, NINETY-FOUR HUNDREDTH, NINETY-FOUR HUNDRED-FIRST, NINETY-FOUR HUNDRED-SECOND, NINETY-FOUR HUNDRED-THIRD, NINETY-FOUR HUNDRED-FOURTH, NINETY-FOUR HUNDRED-FIFTH, NINETY-FOUR HUNDRED-SIXTH, NINETY-FOUR HUNDRED-SEVENTH, NINETY
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# ORIGINAL

Page 1a of 6 pages

The below listed items 11 through 21 are in reference to the collision of AD-5 BuNo 133854 with the ground, resulting from the mid-air collision of 5 January 1956.

11. COST OF DAMAGE \$458,000.00
12. PURPOSE OF FLIGHT - Stall/Spin & Aerobatics
13. TIME IN FLIGHT - 00:33 CODE 1A1
14. TYPE OF ACCIDENT - Mid-Air Collision CODE - A
15. MANUEVER INVOLVED - Aerobetic (Immelmann)
16. WEATHER - VFR CEILING - Unrest. VISIBILITY - Clear
17. DARKNESS - No
18. CLEARANCE ISSUED - VFR
19. WIND DIRECTION - 300° FORCE - 20 kts
20. ATTITUDE OF IMPACT - Vertical nose-down ANGLE OF IMPACT - 90°  
STOPPING DISTANCE - 15 feet SPEED ON IMPACT - Unknown
21. DID FIRE FOLLOW IMPACT - Yes

Page 1a of six (6) pages to VMA-331 AAR 1-56



THE AIRCRAFT ACCIDENT BOARD SHALL SUBMIT THIS REPORT TO THE C.O. OF THE ACTIVITY CONDUCTING THE INVESTIGATION. IT SHALL THEN BE FORWARDED BY THE C.O. IN ACCORDANCE WITH CURRENT AAR INSTRUCTIONS.

1. DATE OF ACCIDENT: 5 January 1956  
2. ACTIVITY SUBMITTING REPORT: VMA-331  
3. AAR SERIAL NO.: 1-56

4. MODEL A/C: AD-5  
5. CHECK DAMAGE TO A/C: ☐ A ☐ B ☒ C ☐ D ☐ E  
6. REPORTING CUSTODIAN OF A/C: VMA-331

7. NAME OF UNIT OPERATING THE A/C: VMA-331  
8. BASED AT: MCAS, Miami, Florida  
9. OPERATIONAL CHAIN OF COMMAND: MAG-31(Rein), Air Force, CNO

10. LOCATION OF ACCIDENT: 42 miles west of MCAS One-Locks, Florida  
11. UNIT TO WHICH OPERATOR ATTACHED: VMA-331

12. PERSONNEL INVOLVED (Including name and injury code of those injured, not occupants of A/C)

A	B	C	D	E
FULL NAME, RANK, SERVICE, FILE NO. (List person in control first)	AGE	BILLET	POSITION	INJURY
(b) (6) Second Lieutenant, USMCR, Svc Gp 1 "A"	(b) (6)	Pilot	Cockpit Left Seat	E

13. PILOT EXPERIENCE

TOTAL ALL MODELS	TOTAL THIS MODEL	LAST 12 MONTHS ALL MODELS	LAST 3 MONTHS ALL MODELS	LAST 3 MONTHS THIS MODEL	INSTRUMENT RATE STANDARD/NO/NO
442.5	108.0	221.9	40.3	40.3	22
TOTAL HOURS					PILOT'S AGE
INSTRUMENT HOURS					DATE DESIGNATED
NIGHT HOURS					22 April 1955
CY LANDING DAY/NITE					

14. CHECK IMPACT OF DAMAGE \$112.00  
15. TYPE OF ACCIDENT: Mid-Air Collision  
16. WEATHER: ☒ VFR ☐ IFR  
17. DARKNESS: ☐ YES ☒ NO  
18. CLEARANCE ISSUED: VFR  
19. WIND DIRECTION/FORCE: 330°/26 kts  
20. ATTITUDE ON IMPACT: Inverted  
21. DID FIRE FOLLOW IMPACT: ☐ YES ☒ NO  
22. PURPOSE OF FLIGHT: Stall/Spin & Aerobatics  
23. TIME IN FLIGHT: 00:33

24. AIRCRAFT AND ENGINE DATA (Fill in all data in every case of material failure or malfunction, actual or suspected)

HISTORY	SERVICE TOUR	MONTHS IN THIS TOUR	TOTAL NUMBER OF OVERHAULS	FLT HOURS SINCE OVERHAUL	FLT HOURS SINCE ACCEPTANCE	TYPE OF CHECK LAST PERFORMED	FLT HOURS SINCE CHECK	NO. DAYS SINCE CHECK
AIRCRAFT	MODEL	SERIAL NO. OF ENGINE						
ENGINE 1								
ENGINE 2								
ENGINE 3								
ENGINE 4								

25. HAS THIS A/C BEEN DAMAGED IN PREVIOUS ACCIDENT(S) DURING PRESENT SERVICE TOUR? ☐ YES ☒ NO  
26. CONTRIBUTORY FACTORS (Check or fill in only one primary "P" factor, all others secondary "S")

27. CHECK CONDITIONS INVOLVED IN THIS ACCIDENT (List other)

<input checked="" type="checkbox"/> P-1 PILOT (OR CREW) ERROR	<input type="checkbox"/> P-2 MATERIAL FAILURE OR MALFUNCTION	<input type="checkbox"/> P-3 AIRPORT HAZARD	<input type="checkbox"/> P-4 TERRAIN CONDITIONS
<input type="checkbox"/> S-1 3-WING, STAGGERED, SLIPSTREAM, TURBULENCE	<input type="checkbox"/> S-2 PITCHING OR ROLLING DECK	<input type="checkbox"/> S-3 COMMUNICATION DIFFICULTY	<input type="checkbox"/> S-4 ROUGH SEAS

28. EMERGENCY CONDITIONS

<input type="checkbox"/> IMMEDIATE FORCED LANDING	<input checked="" type="checkbox"/> PRECAUTIONARY LANDING	<input type="checkbox"/> ENGINE FAILURE	<input type="checkbox"/> FUEL EXHAUSTION OR NEAR EXHAUSTION
<input checked="" type="checkbox"/> PARACHUTE	<input type="checkbox"/> EJECTION SEAT	<input checked="" type="checkbox"/> SHOULDER HARNESS	<input checked="" type="checkbox"/> SAFETY BELT
<input checked="" type="checkbox"/> LIST OTHERS: Field shoes	<input type="checkbox"/> EXPOSURE SUIT	<input checked="" type="checkbox"/> G-SUIT	<input checked="" type="checkbox"/> PROTECTIVE HELMET

29. ENCLOSURES AND DISTRIBUTION CHECK OFF LIST.

CHECK	ENCLOSURE	CHECK	NO.	DISTRIBUTION BY COMMANDING OFF.
1	PILOT		018	CNO (OP-55) VIA CHM. OF COMD.
2	LSO		200	NAVY/AF DIRECT
3	ENG. OFF.		200	NAVER DIRECT
4	CAT. OFF.			
5	WITNESSES			
6	OTHERS			
7	NAVY/AF			
8	NAVY/AF			
9	NAVY/AF			
10	NAVY/AF			
11	NAVY/AF			
12	NAVY/AF			
13	NAVY/AF			
14	NAVY/AF			
15	NAVY/AF			
16	NAVY/AF			
17	NAVY/AF			
18	NAVY/AF			
19	NAVY/AF			
20	NAVY/AF			
21	NAVY/AF			
22	NAVY/AF			
23	NAVY/AF			
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25	NAVY/AF			
26	NAVY/AF			
27	NAVY/AF			
28	NAVY/AF			
29	NAVY/AF			
30	NAVY/AF			
31	NAVY/AF			
32	NAVY/AF			
33	NAVY/AF			
34	NAVY/AF			
35	NAVY/AF			
36	NAVY/AF			
37	NAVY/AF			
38	NAVY/AF			
39	NAVY/AF			
40	NAVY/AF			
41	NAVY/AF			
42	NAVY/AF			
43	NAVY/AF			
44	NAVY/AF			
45	NAVY/AF			
46	NAVY/AF			
47	NAVY/AF			
48	NAVY/AF			
49	NAVY/AF			
50	NAVY/AF			

30. (b) (6)  
(b) (6) Lt MC, USMCR  
(b) (6) Medical Officer  
(b) (6)  
(b) (6) 1st Lt., USMCR  
(b) (6) A/C Maintenance Officer  
(b) (6) Major, USMCR  
Safety Officer:  
E. P. Carey  
E. P. CAREY, Major, USMCR  
Executive Officer:  
10 Jan 1956

ORIGINAL

29. THE ACCIDENT

At 0907R on the 5th day of January 1956, two (2) AD-5 aircraft departed MCAS Miami (Opa-Locks) on a scheduled Stall/Spin, Aerobatic flight. Captain W. C. SPROWLS piloting BuNo 133854 (MP-4) was the leader of the flight, and Second Lieutenant (b) (6) piloting BuNo 133926 (MP-1) was his wingman.

Briefing: At 0600 on the 5th of January Captain SPROWLS briefed Second Lieutenant (b) (6) on the hop. Although the hop had been scheduled as a Stall/Spin Aerobatic training flight, Captain SPROWLS did not brief the hop as such. He briefed Lieutenant (b) (6) to the effect that Captain SPROWLS would engage in Aerobatics at the first part of the flight and that Lieutenant (b) (6) would then do his Aerobatics. After the Aerobatics were completed, they would contact MACS-8 and work an intercept problem with Lieutenant (b) (6)'s flight. Captain SPROWLS briefed both his flight and Lieutenant (b) (6)'s flight on this problem.

The pilots then manned their aircraft and became airborne at approximately 0907R.

The flight proceeded west of Opa-Locks and climbed to an altitude of nine (9) thousand feet. The first part of the period consisted of climbing and gliding turns in formation. Lieutenant (b) (6) was then directed to take a tail chase position. The flight then continued to do wingovers and barrel rolls in column. At approximately 0930, the join-up signal was given and the lead was passed to Lieutenant (b) (6) to allow him to do some individual aerobatics. Lieutenant (b) (6) had completed several rolls, a loop, and was entering an Immelmann at approximately 5500 feet when he noticed Captain SPROWLS' plane to his right rear, approximately 300 feet distance. Lieutenant (b) (6) continued his Immelmann and when he was past the vertical position with his nose approximately 30° above the horizon in the inverted position, he felt his plane shudder in what he believed to be an approaching stall. He relaxed the back pressure on the stick and began to roll his plane to an upright position. However he noticed his nose was high and he allowed the plane's nose to drop as the plane continued to roll to a level position. When Lieutenant (b) (6) plane was in a wing level position, he saw Captain SPROWLS' plane fall past his left wing in a spin. This was the last time Lieutenant (b) (6) saw the other aircraft airborne.

At this time Lieutenant (b) (6) observed the damage to his left wing, and realizing there had been a collision between the two aircraft, he began a search for the other plane. He observed a fire and smoke from a wooded area below him. Lieutenant (b) (6) then proceeded to transmit a crash call and turned on his emergency IFF.

At approximately 0944 Marine Air Control Squadron 8 observed the emergency IFF on their radar screens and directed Lieutenant (b) (6) in LV-4, and Lieutenant (b) (6) in MP-24 and Lieutenant (b) (6) in MP-5 to the scene of the accident. MACS-8 also notified the crash facilities at Miami MCAS and the Miami Coast Guard. When Lieutenant (b) (6) flight arrived at the scene of the accident, Lieutenant (b) (6) was directed to escort Lieutenant (b) (6) back to the home base. Lieutenant (b) (6) made a stall characteristics test at approximately eight (8) thousand feet. He then proceeded to home field and made a successful landing on runway 30 without further incident.

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### 30. DAMAGE TO AIRCRAFT

(a) AD-5 BuNo 133854 - Strike Damage - Cost of damage \$458,000.00

Due to the complete destruction of Captain SPROWLS' aircraft, it is impossible to determine the extent of damage that occurred in the mid-air collision, however, the board believes that the aircraft was not devoid of any major components necessary to sustain flight. An examination of the immediate area around the scene of the impact of the aircraft with the ground proved that the wings, fuselage and tail sections were attached at the time of the explosion, inasmuch as tips, and sections of these components were found within the impact area. The aircraft collided with the ground in a near vertical nose-down attitude. A severe explosion occurred on contact and parts were scattered over a radius of approximately three hundred fifty (350) feet. (Refer Enclosure 7). It is estimated that there were eighteen hundred (1800) pounds of high octane gas in the tank at the time of the explosion. The resulting fire was very small as is evidenced by the fact that the surrounding woods and dried grass did not burn except in the immediate area around the crater caused by the impact. Due to the complete destruction of the aircraft, and the inaccessibility of the area where the accident occurred, salvage operations will not be conducted.

(b) AD-5 BuNo 133926 - Class "C" Damage - Cost of damage \$8142.00

The following parts were damaged in the mid-air collision of the two aircraft:

a. Wing Assembly, Left	P/N R82DG-5255001-13L Cost \$6780.00
b. Aileron Assembly, Left	P/N R82DG-5254013-504 Cost \$863.00
c. Flap Assembly, Center Wing, Left	P/N R82DG-5251480-502 Cost \$499.00

### 31. THE INVESTIGATION

a. From the examination of the damaged wing of Lieutenant (b) (6) plane, the following facts were derived by the accident board:

On the left wing on the point of folding, there are several scratches and indentations leading from the centerline of the wing to the center left wing flap assembly. (Refer Enclosures 8 & 9). These scratches run from the centerline of the wing left towards the trailing edge of the flap, and leading towards the fuselage. It is thought that this was the initial point of impact by the right wing of Captain SPROWLS' plane. The two wings then meshed together. The outer wing bomb racks of Captain SPROWLS' right wing penetrated the skin of Lieutenant (b) (6) left wing. When the two planes separated the bomb racks tore out and aft through the rear main spar, and ripped approximately 75% of the aileron from Lieutenant (b) (6)'s wing. (Refer to Enclosures 10 & 11).

The following facts were ascertained from the examination of pilot and aircraft records:

1. Second Lieutenant (b) (6) was designated a Naval Aviator on 22 April 1955.



31. THE INVESTIGATION (Cont'd)

a. (Cont'd)

2. Second Lieutenant (b) (6) joined VMA-331 on 23 May 1955.
3. Second Lieutenant (b) (6) had a total of one hundred eight (108.0) hours of AD-5 time, and a total of ninety-three point three (93.3) hours of AD-1 and AD-10 time.
4. Second Lieutenant (b) (6) had a total of four hundred forty-two point five (442.5) hours of flight time.
5. Second Lieutenant (b) (6) has had no previous accidents.
6. Second Lieutenant (b) (6) was fully qualified to perform the duties as pilot on this flight.
7. Second Lieutenant (b) (6) has, in the past, shown average flying ability.
8. Aircraft Log Books and Section "B" of the "yellow sheets" showed no discrepancies relative to this accident.

b. The investigation of Captain SPROWLS' aircraft revealed that the aircraft had crashed in the center of a small grove of cypress trees. Examination of the trees indicated that the aircraft had evidently been in a nose-down vertical dive since only a couple of trees showed contact or damage. The aircraft exploded on contact with the ground and the wreckage was scattered over a radius of approximately one hundred (100) yards from the impact area. The impact crater was approximately twenty (20) feet by thirty-five (35) feet and estimated at about twelve (12) to fifteen (15) feet deep. Due to the high water level in that area, the hole was almost completely filled with water which made it difficult to identify parts of the wreckage. From the shape of the crater and the wreckage in it, which was comprised mainly of the main fuselage section, empennage and wing sections, it was ascertained that the aircraft had been heading approximately 330 degrees magnetic in a nose-down attitude. Sections from the left side of the fuselage were blown in the direction of 270 degrees. Parts of those sections were the lower left half of the armor plate cowling, throttle quadrant, left hand cockpit console, and various smaller engine and air frame parts. Parts of the engine, pushrods, cylinders and valves were blown in a northerly heading to a distance of one hundred (100) yards. Also various parts of the cockpit including instruments and the canopy frame were blown in the same general direction. Blown to a heading of 090M, were parts of the fuselage, skin, ribs, etc., plus a few wing sections and a piece of main spar. Sections of the underside of the fuselage were blown in a southerly heading. These parts included the gas tank, speed brake and small sections of the fuselage skin.

The following facts were ascertained from the examination of pilot and aircraft records:

1. Captain SPROWLS was designated a Naval Aviator on 15 June 1944.
2. Captain SPROWLS joined VMA-331 on 18 April 1955.



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31. THE INVESTIGATION (Cont'd)

(d) (Cont'd)

3. Captain SPROWLS was designated a Flight Leader on 23 May 1955.
4. Captain SPROWLS had a total of two hundred fourteen point seven (214.7) hours of AD-5 time, all in VM-331.
5. Captain SPROWLS had a total of two thousand eight hundred and eleven (2811.0) flight hours.
6. Captain SPROWLS had had no previous accidents on record.
7. Captain SPROWLS was fully qualified to perform the duties as Flight Leader on this flight.
8. Captain SPROWLS, in the past, has shown to be above average in his flying ability.
9. Aircraft Log Books and Section "B" of the "yellow sheets" showed no discrepancies relative to this accident.

32. THE ANALYSIS

From the examination of Lieutenant (b) (6)'s plane, it is thought by the board that there was no great differential of speed between the two aircraft at the time of the mid-air collision. Therefore, it is evident that the two aircraft must have been in close formation during the time that Lieutenant (b) (6) entered the Immelmann. Lieutenant (b) (6) states that, when he was in a dive to gain airspeed to enter the Immelmann, he observed Captain SPROWLS' plane to his right rear at a distance of several hundred feet. However, Lieutenant (b) (6) had no idea that Captain SPROWLS was near enough to him to interfere with his maneuvers as he believed he was doing his aerobatics solo. It appears that Captain SPROWLS was following Lieutenant (b) (6) through his maneuvers and when Lieutenant (b) (6) began to roll on the top of the Immelmann, the two planes collided, resulting in the damage to Lieutenant (b) (6)'s left wing. Captain SPROWLS' plane then entered a spin, from which he never recovered.

The board cannot ascertain the reason or reasons, no recovery was made by Captain SPROWLS' plane, nor why he did not bail out of the aircraft.

The error contributing to the accident lies in the fact that Captain SPROWLS was flying too close to Lieutenant (b) (6) in the Immelmann and the two planes collided. There was no malfunctioning or material failures contributing to the accident so far as the accident board can determine.

33. CONCLUSIONS AND RECOMMENDATIONS

a. Conclusions:

The board has come to the conclusion, that the primary factor contributing to the accident was, that Captain SPROWLS was following Lieutenant (b) (6) through in the Immelmann at too close an interval, and Lieutenant (b) (6) was unaware of this fact.

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33. CONCLUSIONS AND RECOMMENDATIONS (Cont'd)

a. Conclusions: (Cont'd)

\* It is against this squadron's policy to engage in formation aerobatics, excepting wingovers and barrel rolls; and especially without prior briefing for these maneuvers. Whereas it apparently had no bearing on the course or result of the accident, it is further noted that Captain SPROWLS changed the purpose of the flight from a Stall/Spin Aerobatics hop, to an Aerobatics and GCI interception problem. Lieutenant [REDACTED]'s flight was to take part in the GCI problem, and his flight was so briefed by Captain SPROWLS. The accident board has come to the conclusion that Captain SPROWLS used an area approximately nine (9) miles north of the aerobatic area for his aerobatics in order to insure a better communication with M4CS-8 control for the GCI problem.

b. Recommendations:

It is the recommendation of this board, that in the future, squadron policies will be adhered to, and that all aerobatic hops be thoroughly briefed as to the maneuvers that will be encountered. It is further recommended, that at no time will aircraft be engaged in formation flight without every pilot of the flight fully aware of the positions of the other planes



ORIGINAL

STATEMENT of Second Lieutenant (b) (6) (b) (6) USMC, concerning  
AD-5's Bullo's 133926 and 133854, accident occurring 5 January 1956,  
pilots (b) (6) and SPROWLS

At approximately 0830 Captain SPROWLS briefed me for an aerobatic and stall spin hop. Captain SPROWLS briefed that after we had done aerobatics for a while we would work with GCI and Lieutenant (b) (6) and Lieutenant (b) (6). Captain SPROWLS briefed on the defensive weave we would use against fighter attack. At approximately 0907 Captain SPROWLS took off first in MP-4 followed by me in MT-1. I joined up on his right wing as we climbed out west of the field. About 0920 and at approximately 9,000 feet Captain SPROWLS put me in a tail chase position and we did some wingovers climbing and gliding turns, and some barrel rolls. I got about 500 feet back once and he called me and told me to close it up. After about ten minutes at approximately 0930 he gave me the join-up signal and I joined on his right wing. Captain SPROWLS asked me if I wanted to do some aerobatics by myself and I said I did. He said Ok, go ahead, I'll get back out of your way. He dropped back behind my left wing. I did some wingovers and a loop. When I did the loop I went to between 4500-5000 to pick up air speed and Captain SPROWLS called me and told me not to get below 5000 feet and I rogered the transmission. I did a barrel roll each way and a slow roll each way and a split "S" along with a few clearing turns. About 0940 I nosed over to pick up airspeed for an Immelmann. As I started my pull-up about 5500 feet I saw Captain SPROWLS' plane to the right and to the rear of my plane. I passed through the vertical with my nose about 30° above the horizon I felt a shudder which I thought was approaching a stall but could have been caused by the two aircraft colliding. I rolled my plane and pushed forward on the stick but was in such a nose-high position that I dropped the plane on one wing to the horizon, and then rolled it level. As I rolled my plane level I observed Captain SPROWLS' plane just forward of my left wing and very close aboard in what appeared to be a spin. I looked around for the other aircraft and noticed my left wing and aileron were damaged. I never saw the other plane again until I observed smoke and fire on the ground, which was about 0945. I made a crash call on guard channel and switched my IFF to emergency. I got Masters Tower, and Prominence gave me my course and distance to the base as 090° 42 miles. A group AD joined up on me but I couldn't contact him. He went to a low altitude to observe the crash. Another group aircraft circled the scene at 10,000 feet. Lieutenant (b) (6) and Lieutenant (b) (6) was detached to escort me back to the base at approximately 1015. I climbed to 8000 and made a slow flight check of the aircraft in a dirty condition. The aircraft got sluggish at about 85-90K. I then returned to base coming in over runway 9 and making a left hand turn to a 180° position for runway 30. I made a long final to runway 30, and was advised to make a no flap approach which I did, I rolled out to the end of the runway and taxied back to Hanger 103. The tower gave me time of landing as 1037.

(b) (6)

(b) (6)

2nd Lt., USMC

Enclosure (1) to VMA-331 A/R 1-56

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STATEMENT of First Lieutenant (b) (6) (b) (6), USMC, concerning  
AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956,  
pilots (b) (6) and STOWLS

I was flying an instrument chase hop at the time Captain SPROWLS and  
Lieutenant (b) (6) were on their aerobatic hop. Guard channel had a very loud  
high pitched squeal (much like an on course signal), so I turned down my  
radio volume. I turned it up to give the men I was chasing radio checks.  
I could hear STOWLS and (b) (6) on Channel # 11, but apparently not on guard.  
I heard Captain STOWLS say, "stay loose back there" and "keep your hands off  
the power." Later I heard Captain SPROWLS tell Lieutenant (b) (6) to "do his  
solo aerobatics". I heard no further transmissions on Channel # 11. I have  
no idea of the times involved on their transmissions or the time interval  
between them as I was paying little attention to what they were saying.

(b) (6)

(b) (6)

1st Lt., USMC

Enclosure (2) to VMA-331 MAR 1-56

ORIGINAL

ORIGINAL

STATEMENT of LtCol. (b) (6), USMC, concerning AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956, pilots (b) (6) and SPROWLS

Shortly after becoming airborne in an AD-5 aircraft, call sign LV-2, at approximately 0940, 5 January 1956, I heard an aircraft call Ope Locka tower on Guard Channel. When the tower failed to answer the aircraft's second transmission, I called the tower and told them MT-1 was calling them on Guard. Further transmissions between the Tower and MT-1 were garbled and unreadable. I then intervened and told MT-1 I would relay his message. His message was garbled but I did receive the words "Northwest" and "Crash". I relayed the message to the tower and they instructed MT-1 to squawk "Emergency". Providence came up on Guard and made contact with MT-1 and received a count which indicated he was 270 degrees, 40 miles from the station. The tower was asking MT-1 for details but he was not answering. I made further contact with him and asked specific questions - "Did an aircraft crash or are you making a crash landing?" The pilot answered in effect - "I don't know, I saw a plane hit my left wing and go spinning down". I asked "Did the plane crash?" He answered to the effect - "I believe so but I don't know where - I didn't see any chute." I then asked if he was on a section tactics flight and was the other aircraft the one flying with him. He said affirmative. I then asked him if his aircraft was damaged and he replied his "left wing was pretty badly chewed up."

The pilot's radio transmissions were hesitant and garbled at first and information had to be specifically asked of him in order to determine what had happened.

(b) (6)

(b) (6)

LtCol., USMC

Enclosure (3) to VMA-331 AWR 1-56

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ORIGINAL



**ORIGINAL**

STATEMENT of First Lieutenant (b) (6), USMC, concerning AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956, pilots (b) (6) and SFCWLS

At 0946, January 5, 1956 I was flying LV-4 on a routine GCI hop. At the time of the accident I was under GCI control. GCI informed me they had an emergency squawk on their scope and immediately vectored me to the area.

I was the first aircraft to arrive at the scene and located MF-1 orbiting the crash at about 3500 feet. I joined up in a safe position and noticed his port wing and aileron badly damaged. I tried unsuccessfully to communicate with him by radio. He then pointed toward the deck at some smoke and I indicated to him that I was going down to investigate. The crash scene itself was in a clump of trees in the glades approximately five (5) miles off the Tamiami Trail at the northernmost bend.

There appeared to be no signs of life at the scene and no identifiable pieces of aircraft. However, as I continued to orbit at 500 feet, I noticed a bright reflection similar to a mirror flash. I then transmitted that there was a possibility of survival. Upon closer scrutiny I rescinded statement and said that the light flashes were actually reflections of the sun on the water in close proximity to the aircraft.

I continued to orbit the crash until the Coast Guard Rescue plane arrived and I then proceeded to Opa-Locka.

I was at the scene of the crash approximately twenty-five (25) minutes.

(b) (6)

(b) (6)

1stLt., USMC

Enclosure (4) to VMW-331 A/R 1-56

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**ORIGINAL**

**ORIGINAL**

STATEMENT of First Lieutenant (b) (6), USMC, concerning AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956, pilots (b) (6) and SPROWLS

**EMERGENCY REPORT**

- 0946 - A Mayday squawk appeared, bearing of 270 degrees, forty-one (41) miles west from prominence.
- 0948 - Emergency was sent by MT-1. LV-4, April Date 24-1 and 24-2 were under GCI control and immediately vectored to scene.
- 0950 - Opa Locke Tower and Coast guard were notified immediately.
- 1000 - Opa Locke helicopter 062 and Coast Guard 1279 were vectored to scene of crash.
- 1005 - MT-1 was involved in a mid-air collision with playmate. Modex unknown. LV-4 was sent to orbit crash at 2000 feet and reported ruins with no apparent survivors. AD 24-1 orbited at 7000 feet to act as High Rescap.
- 1007 - LV-4 reported MT-1 sustained wing damage as a result of collision. MT-1 was relieved from scene of crash and was accompanied to base by AD 24-1.
- 1020 - MR-15 in area to assist rescue, orbiting at 4500 feet.
- 1029 - MT-1 landed safely at Opa Locke.
- 1041 - Helicopter landed at scene of crash and reported no survivors.
- 1055 - April Date 24-1 reported Georef position, GHJL5957. AD 24-1 sent directions for ground crews to reach scene of crash: Take last NW bend on Tamiami Trail five miles on left side is burned out Standard Oil station. Eight miles past gas station is large white arrow and there is a road to the north of the arrow. This will be the first road approached, this road is barred by a large wooden gate and along this road is a large wooden bridge. Ten miles down this road is a saw mill. Scene of crash is one and a half miles north of saw mill. Mr. FUTCH, a civilian at scene of crash will meet rescue party one mile west of bridge 100 on the Tamiami Trail.
- 1115 - Body was found and helicopter reported they were returning with body. Ambulance alerted at sick bay to meet returning helicopter.
- 1130 - Helicopter left one crewman at scene of crash to await rescue party. April Date 24-1 was relieved from scene of crash at 1145 and directed to base. All other aircraft at scene were returned to base.

(b) (6)

(b) (6)

1stLt., USMC  
Senior Controller

Enclosure (5) to VMA-331 1AR 1-56



**ORIGINAL**

STATEMENT of Second Lieutenant (b) (6) (b) (6) USMC, concerning  
AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956,  
pilots (b) (6) and SIOWLS

On 5 January 1956, I was No. 2 plane of a scheduled 2 plane GCI hop.  
(April Date 3124). 1stLt. (b) (6) was leading the flight. After working  
with GCI for approximately one (1) hour, GCI called and informed us to orbit  
our present position (135 degrees, 20 miles to the base) while they investi-  
gated an emergency squawk on IFF. They contacted MP-1 on Guard channel and  
were informed by him that an aircraft had crashed. GCI then instructed us to  
rendezvous and proceed to the scene of the accident. Upon reaching the  
accident I observed smoke coming from a grove of trees, and an AD and TV  
circling the scene. I orbited the smoke for approximately fifteen (15)  
minutes. At that time GCI called and instructed MP-1 to return to MCAS Opa  
Locke. Lt (b) (6) told me to join on MP-1, the second aircraft that was in-  
volved in the accident, and escort him home. After joining on him I observed  
his left wing had the wing tip and about half of the aileron torn away. There  
was also a large hole just ahead of the aileron and the outer corner of  
the left flap was damaged.

We left the scene heading 090 degrees and climbed at about 120 kts. to  
7500 feet where Lt. (b) (6) (pilot of MP-1) slowed the plane to about 90 kts.  
with gear down. I advised him against lowering flaps. After slow flighting  
the aircraft he informed me the plane handled alright. About 20 miles west  
of Opa Locke, GCI contacted us. I informed them of the condition of MP-1  
and they cleared us to tower frequency. Fifteen miles out I called Opa Locke  
tower, informed them of the condition of MP-1, and requested a straight in  
approach to the duty runway which was 30. MP-1 came in over runway 9L at  
3000 feet. I told Lt. (b) (6) to turn left and establish a very wide 180  
degree position for runway 30. I advised against a right hand approach  
because this would take him over a heavily populated area. On the down wind  
leg I went over the landing check-off list for him and again advised him  
against using flaps. We were at 1000 feet and had about a wing tip and a  
half distance at the 180 degree position. He made his no-flap approach and  
at approximately 190 kts. I followed him down to about 50 feet and took a  
wave-off after he had safely touched down.

Radio communications were very poor practically all the time. MP-1 had  
a poor receiver and was receiving about one third of the time. The tower's  
transmitter was not working all the time. There was a very loud squeal on  
Guard channel from the time I took off at 0900 until I landed at 1050.

(b) (6)

(b) (6)

2ndLt., USMC

Enclosure (6) to VMA-331 AAR 1-56

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**ORIGINAL**

ORIGINAL

CRASH SCENE OF MP-4  
ORIGINAL

Diagram of explosion Pattern  
of /D-5 Bulb 133854

Enclosure (7) to VHA-331 AAR 1-56



ORIGINAL

Enclosure (5) to WJ-331 11B-1-56

Demaged flap and exterior of left  
side of AD-5 Expo (9) (9)

ORIGINAL

Enclosure (9) to VFA-331 AAF 1-53

Revised left wing of 10-5 Turbo

(9)

(9)





ORIGINAL

Enclosure (10) to 714-331 AM 1-56

— Damaged left wing of JD-5 Bufo

(6)

ORIGINAL

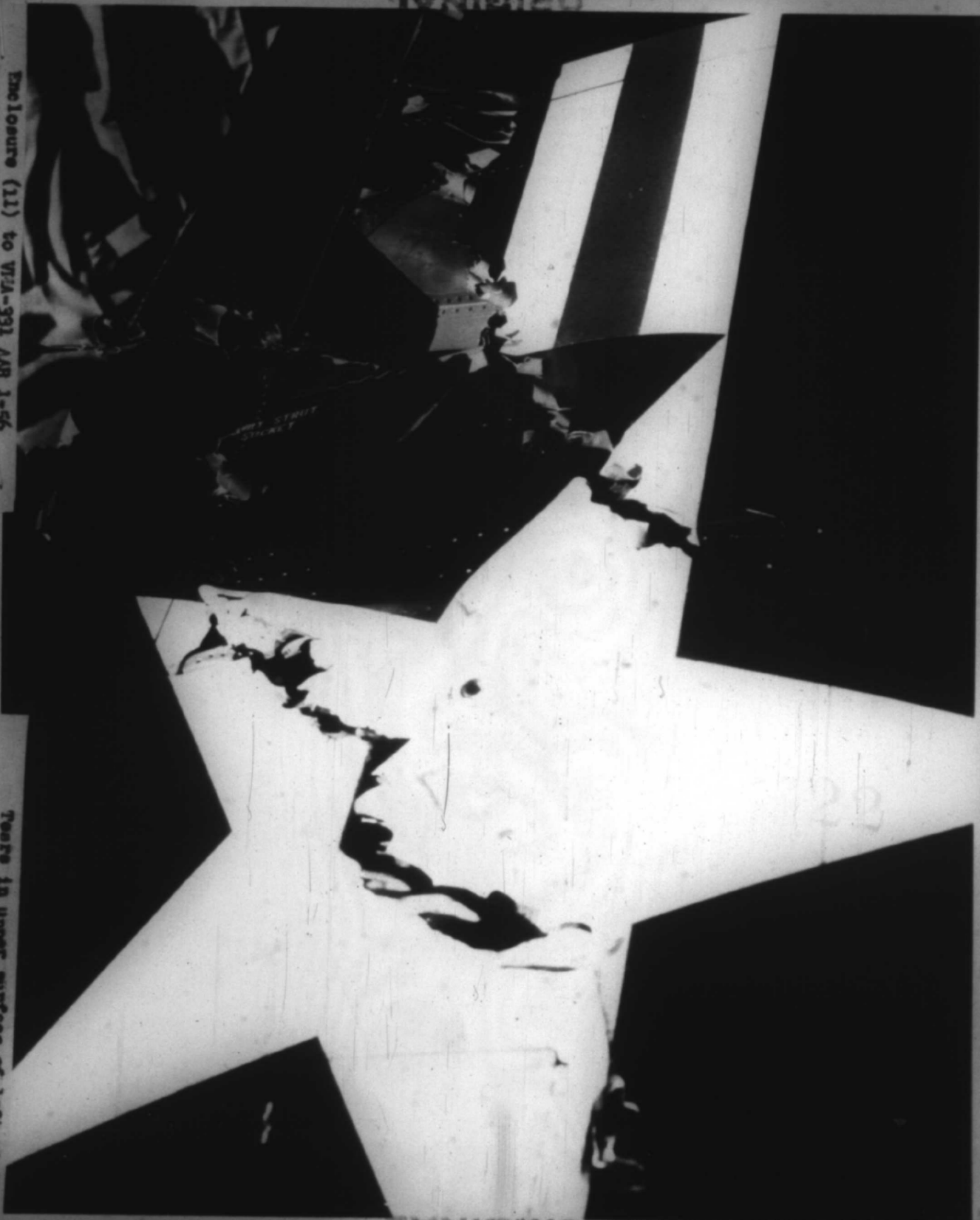


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Enclosure (11) to WIA-331 AAR 1-56

Teeth in upper surface of left wing  
of JD-5 Bufile (b) (6)

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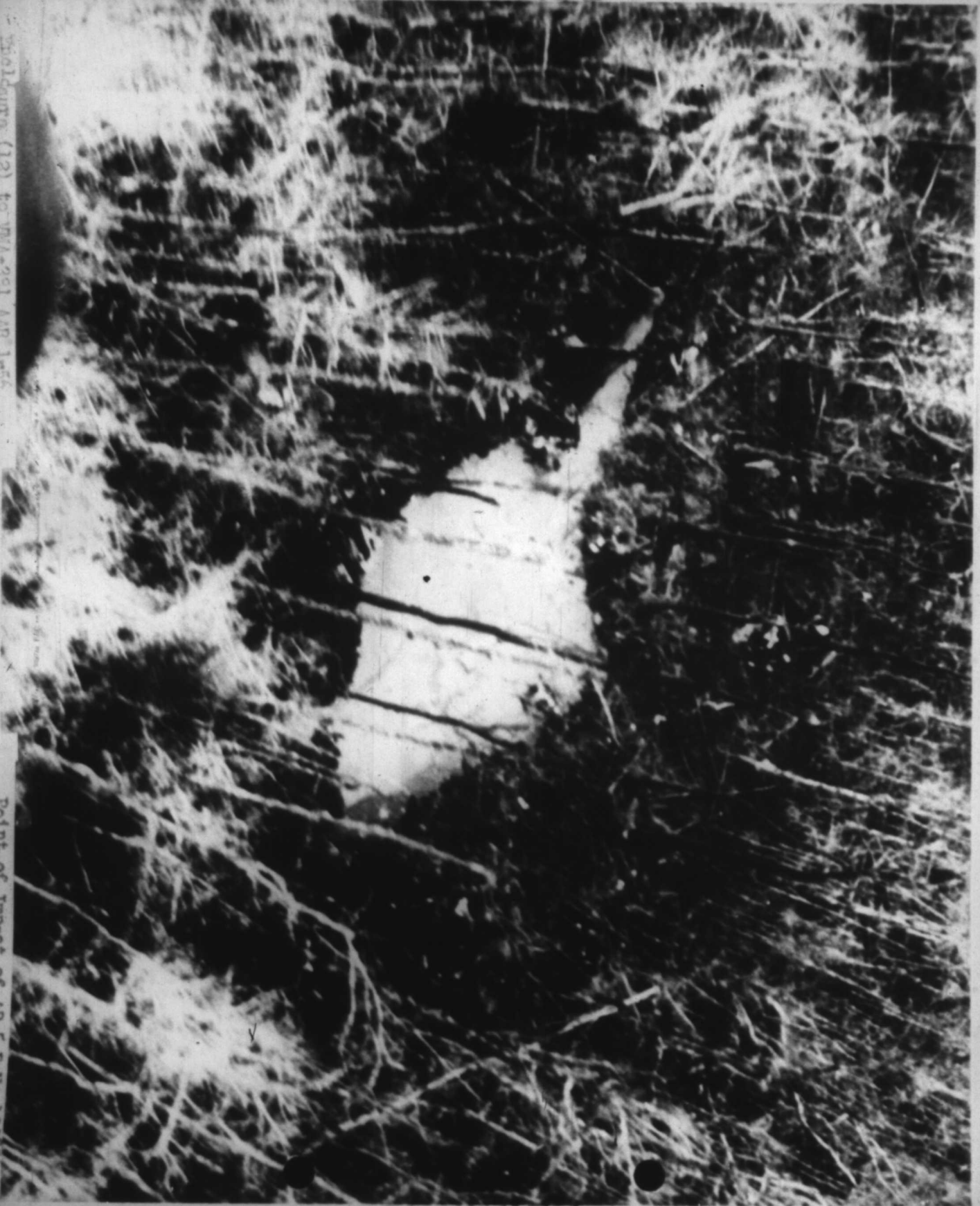




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Holdaura (12) to WVA-391 MAR 1-56

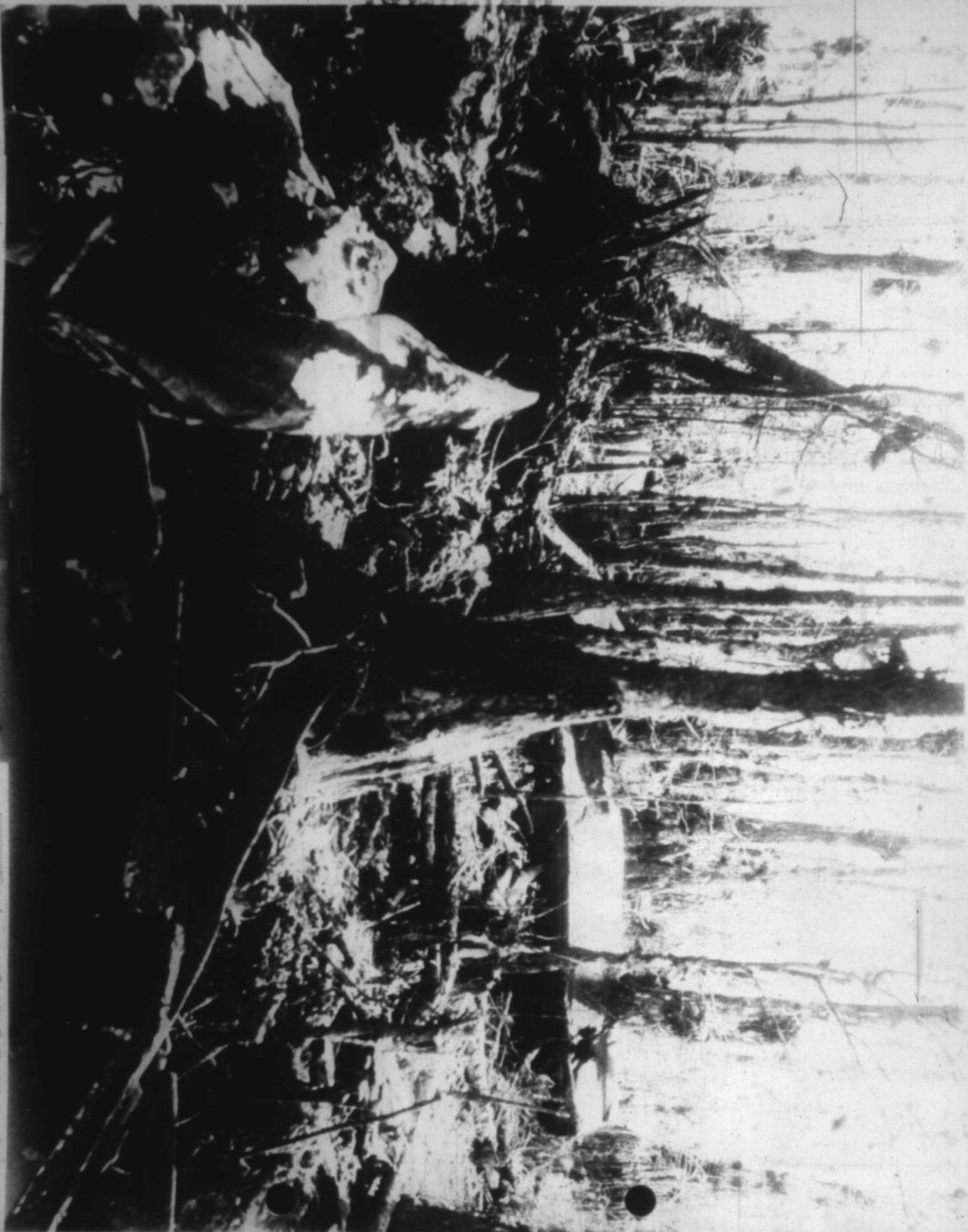
Point of Impact of AD-5 Bufo 193854



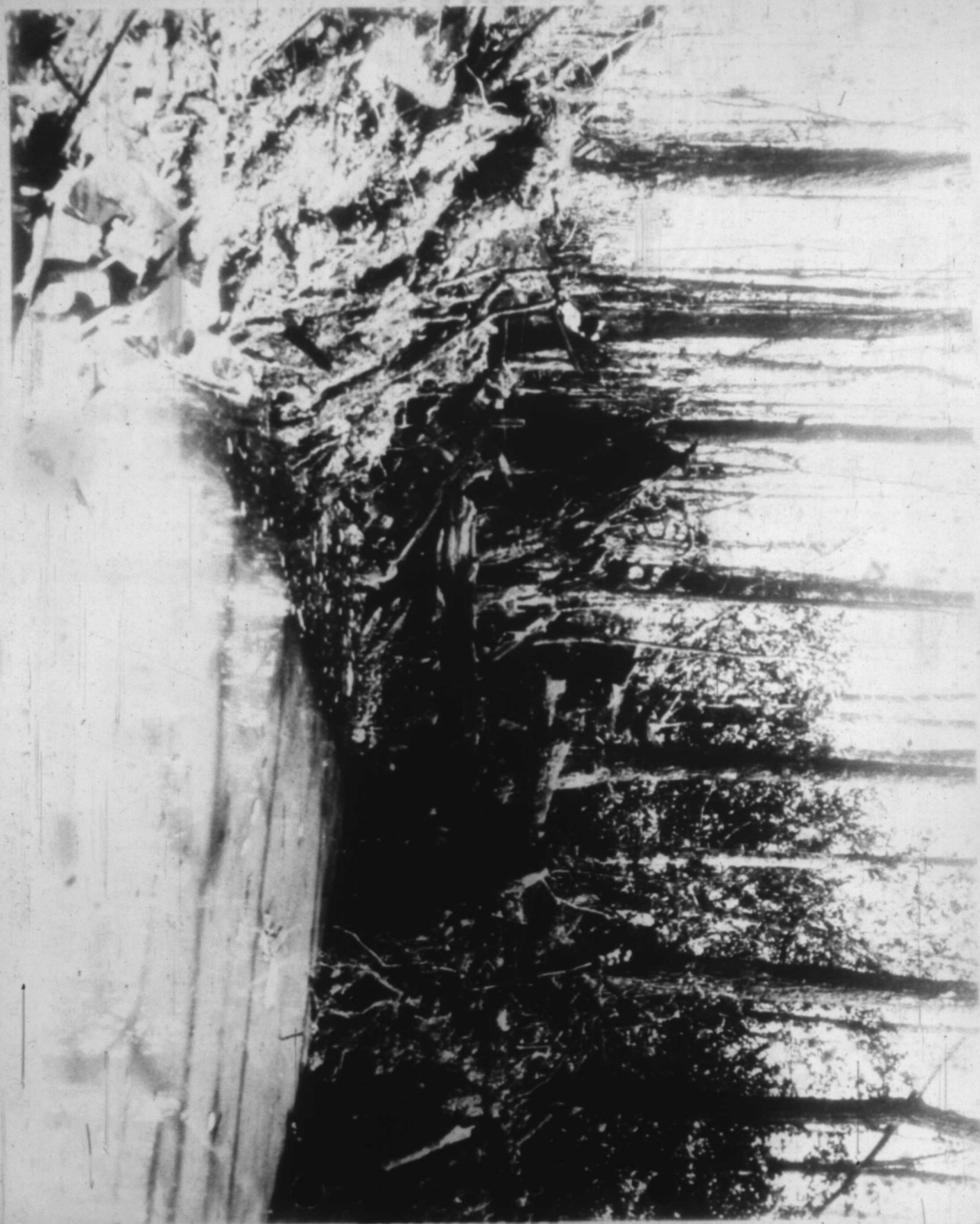
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Enclosure (13) to WPA-331 / R 1-55

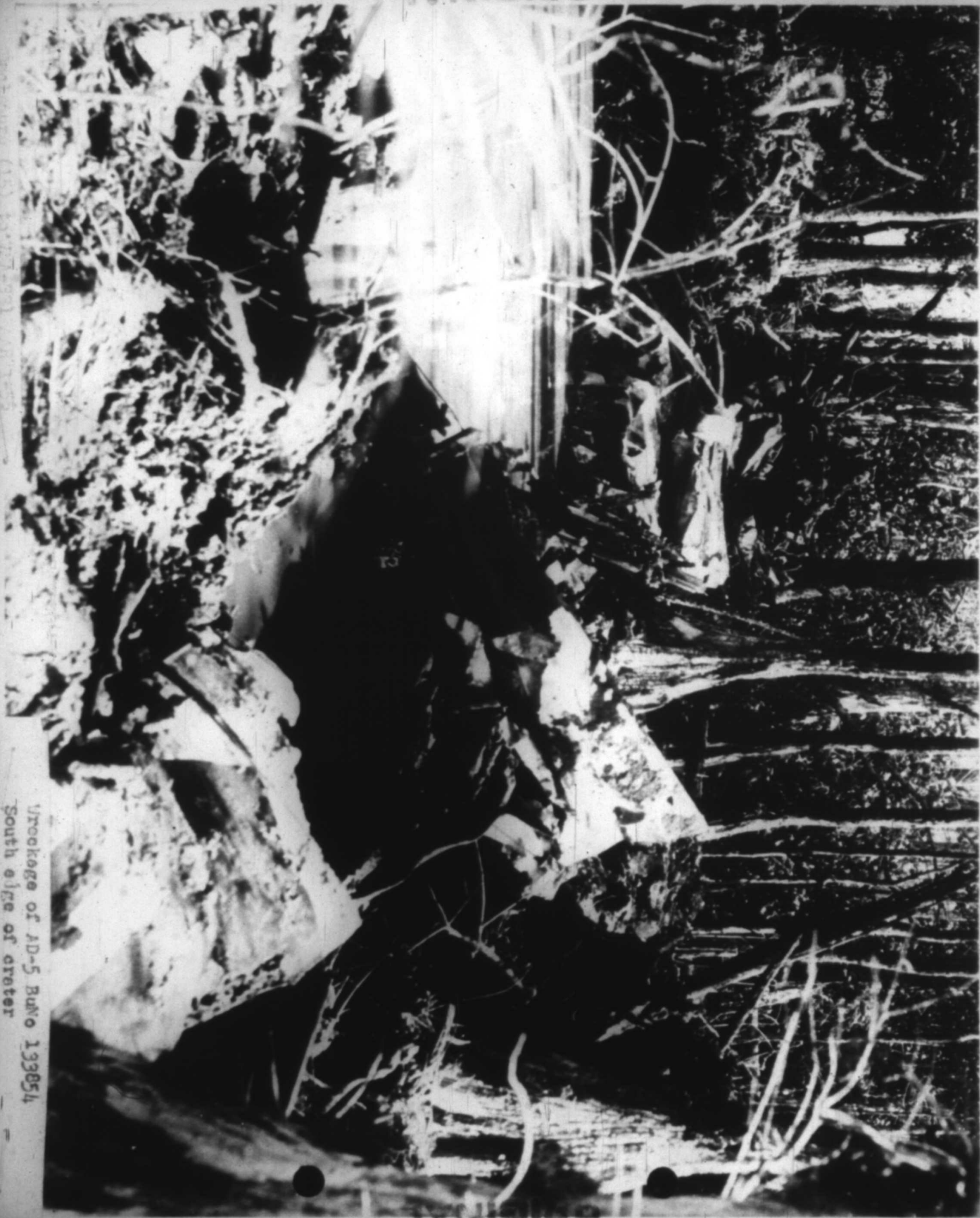
Package of AD-5 Tube 19854  
North edge of crater







Wreckage of AD-5 BuNo 133854  
South edge of crater





Enclosure (16) to W.A-331 MAR 1-55



117601 cc of 4.0-5 mm H<sub>2</sub>O  
est. 0.170 cc of water

ORIGINAL

**ORIGINAL**

STATEMENT of Lieutenant (sg) (b) (6), MC, USNR, concerning AD-5's BuNo's 133926 and 133854, accident occurring 5 January 1956, pilots (b) (6) and STOWLS

At 0951 January 5th the station hospital received a phone call that a plane was down. The helicopter arrived almost immediately. We took off and headed due west toward the scene, and after some difficulty in locating the downed plane we were guided to the scene by an AD. There was no signs of life from the air. The helicopter landed and I began looking for the pilot. After a few minutes I was joined by the crewman from the helicopter. Wreckage was scattered over about a hundred yard radius. The terrain was slightly boggy with moderate growth of small trees. The main impact had made a hole about 25 feet by 15 feet and about 8 to 10 feet deep with approximately 2 to 3 feet of water in the bottom. We were able to locate the pilot's body by small pieces of burned life vest and the life raft which was intact. The body was covered by mud and small pieces of wreckage which was smoldering and occasionally burst into flames as we dug off the mud. The body was located on the bank of the crater in what appeared to be small parts of the cockpit. A seat lap belt clasp was found fastened. Several clasps from straps were found fastened; two of these clasps were recognized as being from the parachute by the new type releases. What appeared to be the packed parachute was burning in the same location. The crewman remained as a security guard and the body was brought back by helicopter.

(b) (6)

(b) (6)

Lt MC USNR

Enclosure (17) to VMW-331 IIR 1-56

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**ORIGINAL**